

REMARKS

Claims 1-5, 7, and 9-16 are pending in this application. Claims 6 and 8 have been canceled. Claims 11-16 have been newly added. Reconsideration of the rejections in view of these amendments and the following remarks is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment, which is captioned "Version with Markings to Show Changes Made."

Rejections under 35 USC §112, Second Paragraph

Claims 1-10 were rejected under 35 USC §112, second paragraph, as being indefinite because there is antecedent basis for the limitation "a gas" in line 3 of claim 1.

The limitation "a gas" in line 3 of claim 1 has been amended to "the gas." Thus, the rejection has been overcome.

Rejections under 35 USC §102(b)

Claims 1-3 and 6-10 were rejected under 35 USC §102(b) as being anticipated by Nagayama et al (U.S. Patent No. 5,779,453).

Nagayama discloses a motor for a vacuum pump, which comprises a rotor and a stator. The rotor of Nagayama comprises magnetic poles of permanent magnets.

Claim 1 has been amended to recite "a motor rotor having **salient poles of metal magnetic material, which is highly resistant to corrosion**, each of said salient poles being a protrusion portion of unitary formed rotating body;" and "a motor stator having magnetic poles, said stator

being covered by synthetic resin material having a surface positioned radially inwardly of an inner circumferential surface of said stator, which is highly resistant to corrosion.”

Thus, the rotor of the present invention comprises salient poles of metal magnetic material, which is highly resistant to corrosion. The gas transfer machine according to the present invention has simple structure because it does not use permanent magnets, as shown in Nagayama, or secondary rings and end rings as shown in conventional induction motors.

Therefore, a motor rotor of increased mechanical strength can be obtained for rotation at a high speed while being used in corrosive gas atmosphere.

For at least these reasons, claim 1 patentably distinguishes over Nagayama. Claims 2-3, 7, 9 and 10, depending from claim 1, also patentably distinguish over Nagayama for at least the same reason. Claims 6 and 8 have been canceled.

Thus, the §102(b) rejection should be withdrawn.

Rejections under 35 USC §103(a)

Claims 4-5 were rejected under 35 U.S.C. §103(a) as being obvious over Nagayama et al in view of Naito et al (U.S. Patent No. 5,929,541).

Naito et al is cited for allegedly disclosing a material comprising a magnetic alloy of iron and nickel. Such disclosure, however, does not remedy the deficiencies of Nagayama et al. Therefore, claims 4 and 5, depending from claim 1 also patentably distinguish over Nagayama et al and Naito et al.

Thus, the §103(a) rejection should be withdrawn.

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It is submitted that nothing in the cited references, taken either alone or in combination, teaches or suggests all the features recited in each claim of the present invention. Thus all pending claims are in condition for allowance. Reconsideration of the rejections, withdrawal of the rejections and an early issue of a Notice of Allowance are earnestly solicited.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully Submitted,

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Enclosures: Version with Markings to Show Changes Made

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IN THE CLAIMS:

Claims 6 and 8 have been canceled.

Claims 11-16 have been added.

Claim 1-5 and 7 have been amended as follows:

1. (Amended) A gas transfer machine for transferring a gas including a corrosive gas,
comprising:

a pump rotor mounted on a rotatable shaft for transferring a the gas including a corrosive gas;
and

a reluctance-type motor for rotating said rotatable shaft about its own axis directly coupled
thereto, said pump rotor and said motor being disposed in a housing;

~~wherein said motor comprises a rotor having a plurality of magnetic salient poles of a first
material highly resistant to corrosion and a stator being covered by a second material highly resistant
to corrosion~~

a motor rotor having salient poles of metal magnetic material, which is highly resistant to
corrosion, each of said salient poles being a protrusion portion of unitary formed rotating body;

a motor stator having magnetic poles, said stator being covered by synthetic resin material
having a surface positioned radially inwardly of an inner circumferential surface of said stator, which
is highly resistant to corrosion;

15 wherein said salient poles of the motor rotor are attracted to rotate by magnetic forces
16 generated by said poles of said stator.

2. (Amended) A gas transfer machine according to claim 1, wherein ~~said second material comprises a molded body of synthetic resin having a surface positioned radially inwardly of an inner circumferential surface of said stator; said stator being~~ is embedded in ~~said~~ a molded body of ~~synthetic~~ said resin material.

3. (Amended) A gas transfer machine according to claim 1, wherein said ~~second~~ resin material comprises a can of synthetic resin or nonconductive material.

4. (Amended) A gas transfer machine according to claim 1, wherein said ~~first material highly resistant to corrosion~~ metal magnetic material comprises a magnetic alloy of iron and nickel.

5. (Amended) A gas transfer machine according to claim 1, wherein said ~~first material highly resistant to corrosion~~ metal magnetic material comprises permalloy.

7. (Amended) A gas transfer machine according to claim 1, wherein said ~~second~~ resin material highly resistant to corrosion comprises a can of synthetic resin or nonconductive material.